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Successful use of mycophenolate mofetil to treat severe chronic urticaria in a patient intolerant to ciclosporin

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Mycophenolate mofetil (MMF) is a pro-drug of mycophenolic acid, which acts by inhibiting lymphocyte proliferation and antibody production. A number of reports have been published on its effectiveness in treating several dermatological conditions, including psoriasis, immunobullous diseases and connective-tissue disorders.[1] We report the use of MMF to treat chronic urticaria (CU).

A 34-year-old white woman presented with a 3-month history of daily symptoms of CU. She had a family history of hypothyroidism, and was positive for thyroid peroxidase antibodies.

Conventional combinations of high-dose H1 and H2 receptor antagonists for 6 months failed to control her symptoms. She was started on ciclosporin 3 mg/kg, with a good response within 3 weeks. This was reduced and stopped after 6 months, without relapse for 3 years. On subsequent flare, ciclosporin was prescribed, but although effective, this had to be discontinued because of nephrotoxicity. The condition responded to prednisolone 25 mg/day and MMF 500 mg twice daily. The MMF was gradually increased to a dose of 1.5 g twice daily, allowing the cessation of oral prednisolone. With this dose, the patient's symptoms were well controlled for 6 months, but relapsed each time the dose was reduced below 500 mg twice daily, thus this dose was continued for a further 10 months. Fexofenadine 180 mg daily was then re-introduced, which resulted in an improvement in symptoms that was sufficient to allow reduction and withdrawal of MMF without recurrence. She had no side-effects or laboratory abnormalities during treatment, and no recurrence of the CU had occurred during the 6-month follow-up after discontinuation of MMF.

CU is characterized by the presence of recurrent pruritic weals for > 6 weeks. There is evidence that 40–50% of patients have some degree of autoimmunity, as shown by the finding of serological mediators such as autoantibodies against the high-affinity IgE receptor. This has prompted the use of immunomodulatory drugs in recalcitrant cases.[2]

The first-line treatment of CU is antihistamines. Patients not responding to oral antihistamines and combination therapy with leucotriene antagonists may need a more aggressive approach with short or prolonged courses of oral steroids or ciclosporin. Potential adverse effects can limit this regimen.

MMF is a valuable treatment for patients who fail conventional treatment. Although the safety data for MMF within the dermatological literature is sparse, it has been used extensively within the field of organ transplantation, with a good safety profile. The potential adverse effects include gastrointestinal and haematological disturbances, and increased predisposition to infection.[3]

There have been no controlled studies investigating MMF in the treatment of CU. However, in an open-label trial of nine patients with CU who failed to respond to antihistamines and steroids, MMF 1 g twice daily for 12 weeks produced a significant decrease in the Urticarial Activity Score ($P < 0.001$), with the weal and itching scores reducing significantly ($P < 0.004$ and $P < 0.002$, respectively) after 6 weeks of treatment. All patients were able to stop prednisolone on completion of the study, and none had significant side-effects from MMF.[4] Recently, a retrospective chart review of 19 patients with autoimmune and idiopathic CU treated with MMF found that the treatment was helpful in improving both types of CU (91% vs. 88%) but that the rate of complete control was higher in the autoimmune group compared with the chronic idiopathic group (70% vs. 41%).[5]

Our results concur with those of previously published studies indicating that MMF is an effective and well-tolerated treatment option for CU that can lead to sustained remission. We found that combining MMF with oral prednisolone was helpful in gaining immediate control of the CU symptoms. Re-introduction of antihistamines after adequate disease control in our patient allowed withdrawal of MMF without recurrence of the CU.

Comment [A1]: AU Query: This journal uses UK English, so some spellings and grammar have changed

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References

1. Orvis AK, Wesson SK *et al*. Mycophenolate mofetil in dermatology, *J Am Acad Dermatol*. 2009; **60:** 183–99
2. Tedeschi A, Ariagi A *et al*. Chronic urticaria: a role for newer immunomodulatory drugs? *Am J Clin Dermatol*. 2003; **4:** 297–305.
3. Hyunhee Park, DO. The emergence of mycophenolate mofetil in dermatology. *J Clin Aesthet Dermatol*. 2011; **4:** 18–27.
4. Sahar E, Bergman R *et al*. Treatment of severe chronic idiopathic urticaria with oral mycophenolate mofetil in patients not responding to antihistamines and/or corticosteroids. *Int J Dermatol*. 2006; **45:** 1224–7.
5. Zimmerman AB, Berger FM. The use of mycophenolate mofetil for the treatment of autoimmune and chronic idiopathic urticaria: Experience in 19 patients. *J Am Acad Dermatol* 2012; **66:** 767–70.